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CURRENT SUPPORT BRIEF

GOALS FOR THE PRODUCTION OF ELECTRIC POWER IN THE COMMUNIST PARTY PROGRAM, USSR

OFFICE OF RESEARCH AND REPORTS

CENTRAL INTELLIGENCE AGENCY

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GOALS FOR THE PRODUCTION OF ELECTRIC POWER IN THE
COMMUNIST PARTY PROGRAM, USSR

The goals for the production and consumption of electric power occupy a leading position in the Draft Program of the Communist Party of the Soviet Union published on 30 July 1961, 1/ and support Lenin's oft quoted dictum that "Communism is the Soviet power plus the electrification of the entire country". 2/

The Draft Program states that the planned production of electric power in the USSR will reach 2,700-3,000 billion kilowatt-hours (kwh) by 1980. 3/ This is 86 percent of the projected production of electric power in the US at that time. To reach this planned level of production, the Soviet electric power industry must continue its past 12 percent average annual rate of growth and will require an ever increasing share of the resources of the Soviet economy.

A. Continued Past Rapid Rates of Growth

In line with the dictum contained in the Draft Program that "electrification, which is the backbone of the economy of Communist society, plays a key role in the development of all branches of the national economy and in insuring all modern technological progress", the new Draft Program foresees a tripling of the production of electric power every 10 years, compared to a tripling of industrial output in 12 years, and a tripling of steel production in 17 years. The goals for the production of 900-1,000 billion kwh in 1970 and 2,700-3,000 billion kwh in 1980 are the only specific and absolute goals to appear for each stage in the twenty year program.

These goals are somewhat higher than previous long range goals for the production of electric power and the historically high rate of growth is to continue.

Long Range Goals for the Production of Electric Power in the USSR

Year	Billion kwh		
	Fifteen Year Plan 5/ (1957)	Khrushchev 6/ (1959)	Party Program 7/ (1961)
1970	800-900 (1972)	900	900-1,000
1980	—	2,300	2,700-3,000

The party planners expect no diminution in the average annual percentage increase in the production of electric power through 1970, and only a slight decline thereafter.

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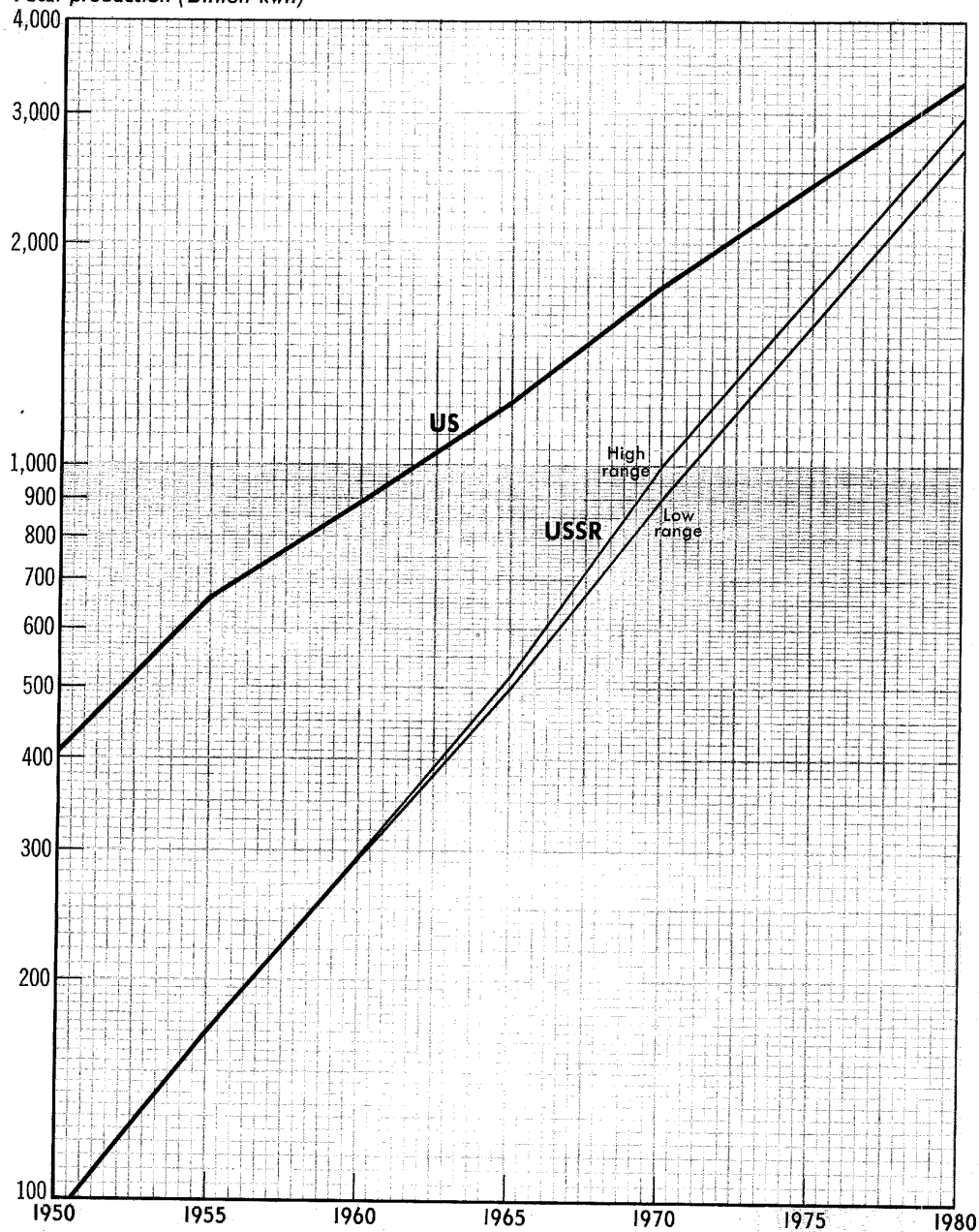
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US and USSR Gross Production of Electric Power 1950-80

Total production (Billion kwh)



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Average Annual Increases in the Production of Electric Power
in the USSR

Period	Average Annual Increase	
	(Billion kwh)	(percent)
1950-1960	20	12.4
1960-1970	61-71	11.8-13.1
1970-1980	180-200	11.6

In 1970 the annual increase in production of electric power will be close to 110 billion kwh and in 1980, 320 billion kwh. The proposed annual increases are as much as the total national output of electric power in 1951 and 1961, respectively.

B. Soviet Power Production to Reach 86 Percent of US Production in 1980

The avowed intent of the Draft Program is to chart the course for the USSR to overtake and surpass the US. The Program foresees a future growth of the production of electric power which, using Soviet comparisons, permit achievement of this goal. The party planners, however, base their comparisons on estimates made by the Federal Power Commission, which predict a growth that would result in a gross* production in the US in 1980 of 2,300-2,400 million kwh--considerably under the Soviet goal for that year--and in a greater production per capita in the USSR than in the US. 8/ Most other predictions of the growth of the production of electric power in the US, however, give estimates which, when adjusted to gross production, indicate production at levels in the range 2,600-3,600 million kwh, depending upon their assumptions concerning the growth of the US economy. Assuming for the US a four percent average annual growth in the GNP and a 4.5 percent average annual growth in industrial production, the gross production of electric power in the US will grow to about 1,750 billion kwh in 1970 and 3,300 billion kwh in 1980. The gross production of electric power in the USSR was 33 percent of that in the US in 1960. The figures in the Party Program would indicate a growth to 54 percent of projected US production in 1970 and to 86 percent in 1980.

Gross Production of Electric Power in the US and the USSR,
1960, 1970, 1980

	1960	1970	1980
US (Billion kwh) a/	884	1,750	3,300
USSR (Billion kwh)	293	950 b/	2,850 b/
Difference (Billion kwh)	591	800	450
USSR as Percent of US	33	54	86

a. Derived from a projection in Electrical World 9/

b. Mid-point of range.

* Soviet figures represent gross production of electric power, including power used by the powerplants themselves, whereas US figures are net of station use. The difference is about five percent of total gross production. In this paper, US figures for net production have been converted to gross production for purposes of comparison with the USSR.

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Production of electric power per capita in the USSR would grow from 28 percent of the US level in 1960 to 48 percent in 1970 and 79 percent in 1980, and would surpass the present US level in the early 1970's.

Production of Electric Power Per Capita in the US and the USSR

(kwh)			
Year	US <u>a/</u>	USSR <u>b/</u>	USSR as Percent of US
1960	4,890	1,370	28
1970	8,190	3,910	48
1980	12,700	9,970	79

a. Based on US Bureau of Census predictions of population growth.

b. Based on Central production figure and population figures used by USSR planners. 10/

C. Electric Power Industry to Require an Ever Increasing Share of Resources of the Soviet Economy

Actual Soviet realization of the goals for the production of electric power given in the Draft Program depends upon whether the economy as a whole can continue to grow at the rate required to consume these amounts of electric power. The rate of growth of the economy depends, in turn, upon future resource allocation, capital-output levels, technological and managerial efficiency, etc. Fulfillment of the goals will result in the electric power industry requiring an ever increasing share of the resources of the Soviet economy.

The production of the projected amounts of electric power would require a generating capacity of 200 million kilowatts (kw) by the end of 1970 and of 600 million kw by the end of 1980. It would require the installation of over 20 million kw of generating capacity in 1970 and 60 million kw in 1980, compared to less than six million kw in 1960. The new capacity required for installation in 1980, alone, would be as great as that called for over all of the Seven Year Plan (1959-65).

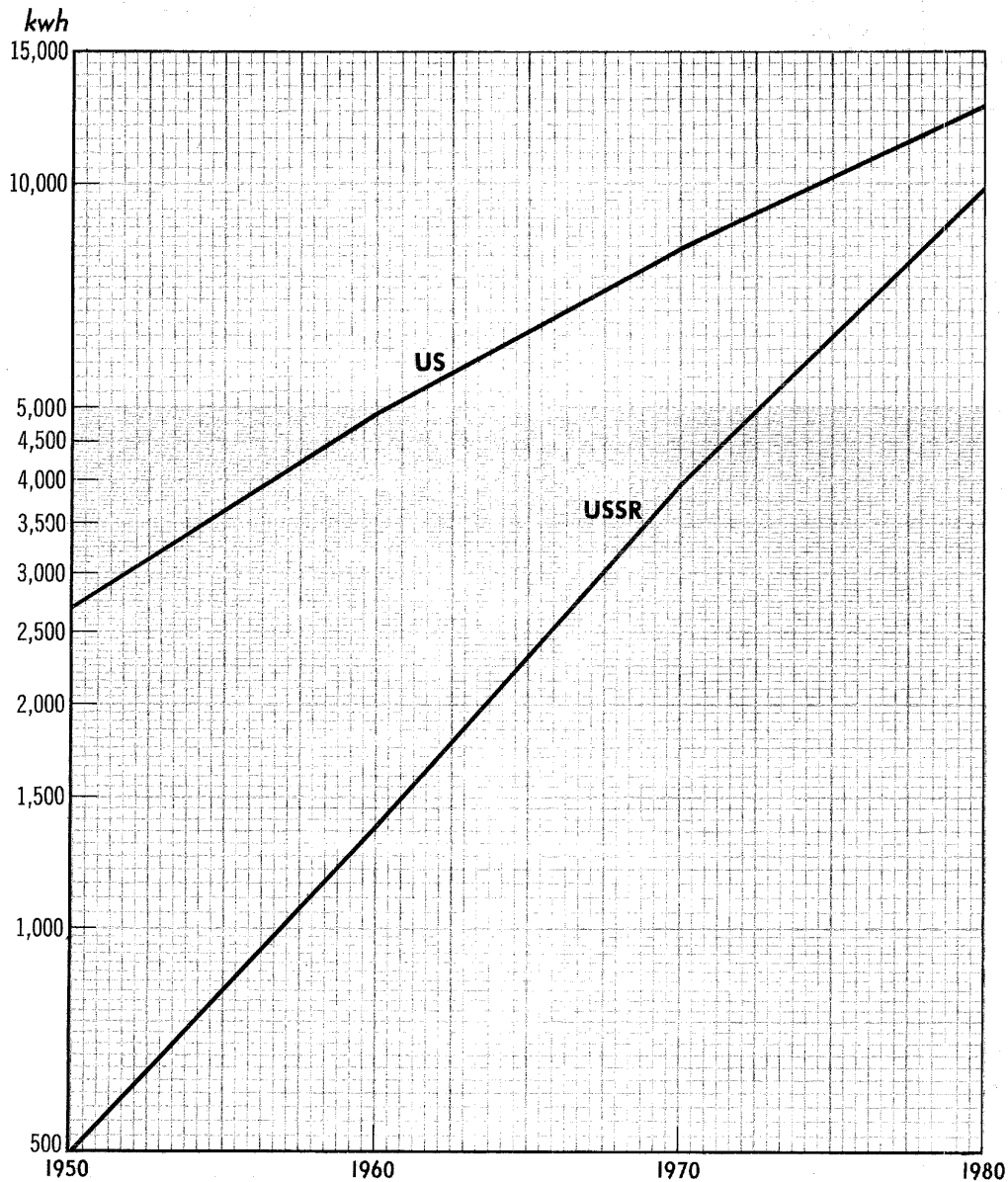
If, as is expected, the unit cost of constructing power facilities continues to decrease as it has in the past, and the entire country draws its power from the public supply by 1970, then the annual investment required for the electric power industry would be about four billion (1961) rubles in 1970 and 10 billion rubles in 1980. Total investment for the 20-year period would have to be about 100 billion rubles. In addition, an equal amount would have to be invested in the equipment to use the electric power. In the past, investment in equipment to generate and consume electric power has approximated 15 percent of industrial investment. Because the production of electric power is planned to grow approximately twice as fast as the economy, investment in electric power facilities and equipment may grow to a larger percent of industrial and total national investment by 1980.

No data are given in the Draft Program concerning the types or amounts of fuel that will be needed for the production of the planned amount of electric power, other than to say that priority will be given

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US and USSR Gross Production of Electric Power Per Capita 1950-80



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to oil and gas, that "because of the shortage of other fuels", atomic power will be pushed, and that there will be "wide development" of hydroelectric resources. It is estimated that in 1970 and 1980 electric powerplants will be using over one-third of all the primary energy consumed in the USSR.

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Analyst:



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3. Ibid.
4. Izvestia, op. cit., (1, above), p. 5.
5. Pravda, 8 Dec 1957.
6. Pravda, 13 Dec 1959.
7. Izvestia, op. cit., (1, above), p. 5.
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9. Electrical World, 19 Sep 60, pp. 108-118.
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